SOP-10: The effect of obesity on pain and psychological level among women with knee osteoarthritis attending District General Hospital, Kalutara, Sri Lanka

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Introduction: Osteoarthritis is a chronic degenerative condition that mainly affects the knee joint and is characterised by deterioration of the articular cartilage, joint stiffness, pain and impaired movement. This study was conducted to examine the effect of obesity on pain intensity, pain-related fear of movement, physical functioning and depression-anxiety level in women with knee osteoarthritis attending District General Hospital, Kalutara.

Methods: A cross-sectional study was conducted at the Department of Physical Medicine, District General Hospital, Kalutara. Seventy-five women with a mean age of 61.71 years (SD=5.91) with knee osteoarthritis were divided into obese (BMI>30 kg/m^2), overweight (25<BMI>30 kg/m^2), or non-overweight (BMI<25 kg/m^2) using simple random sampling method. Pain intensity, pain-related fear of movement, physical functioning and depression-anxiety level were assessed using Short-form McGill Pain (SF-MPQ-2), Tampa Scale-11 (TSK-11), WOMAC Osteoarthritis Index, and Hospital Anxiety and Depression Score (HADS) questionnaires, respectively. Patients were given the questionnaires according to their preferred language (Sinhala/Tamil). Weight and height were measured using a standard weighing scale and measuring tape. Data were analysed using one-way ANOVA and Pearson's correlation statistical test in SPSS version 23.

Results: Women with knee osteoarthritis in different BMI groups showed significant differences in SF-MPQ-2 (p=0.025), TSK-11 (p=0.032), WOMAC Index (p=0.043) and anxiety score of HADS (p=0.037) but not in depression score of HADS (p>0.05). The SF-MPQ-2 score (r=0.307; p=0.02), TSK-11 (r=0.301; p=0.009), WOMAC Index (r=0.287; p=0.012) and anxiety score of HADS (r=0.271; p=0.019) showed significant positive correlations with BMI.

Conclusions: There was a significant difference in pain intensity, pain-related fear, physical functioning and anxiety level among women with knee osteoarthritis of different BMI groups. Pain intensity, difficulty in functioning, pain-related fear of movement and anxiety level were higher in women with higher BMI.

Keywords: knee osteoarthritis, BMI, pain, physical functioning, anxiety

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